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#### REMARKS

The Office Action dated April 8, 2004, has been received and reviewed. Claims 1-13 and 16-63 are pending in this application. Claims 14-15 and 63-93 have been withdrawn from consideration by the Examiner due to a restriction requirement. Applicants have canceled these claims without prejudice or disclaimer. Claims 4-11, 20-25, 27-30, 34-42, 46-56 and 58-60 have also been canceled. Claims 94-107 have been added. Applicants respectfully request reconsideration of the application in view of the amendments above and remarks below.

Applicants wish to thank Examiner Kallis and Examiner Nelson for the opportunity to conduct a personal interview for this application on July 15, 2004, at which Applicant's representative, Jarett K. Abramson, and Eric S. Furman, via telephone, were present. The pending rejections and cited art were discussed and the present amendments and remarks are presented herein in response to those discussions.

## I. Claim Objections

Claims 1, 7-9, 12, 16, 22-23, 26, 31-38, 40-41, 46, 48, and 57-58 have been objected to as allegedly containing various informalities. Applicants have subsequently amended or canceled these claims to comply with the objections raised in the Office Action. Accordingly, Applicants respectfully request that the objections to Claims 1, 7-9, 12, 16, 22-23, 26, 31-38, 40-41, 46, 48, and 57-58 be withdrawn.

## II. Drawings

The drawings are objected to as purportedly containing copying artifacts. Applicants have included a copy of formal drawings with this response. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

## III. Information Disclosure Statement

Applicants have included with this response a copy of all non-US patent references for the Information Disclosure Statement submitted September 24, 2001 as requested in the Office Action. Additionally, Applicants submit herewith a Supplemental Information Disclosure Statement to submit documents cited in the European Search Reports for the corresponding application numbers 04004192.3-

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2405 and 04004191.5-2405. Each document listed on the Supplemental Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign not more than three months prior to the filing of the Supplemental Information Disclosure Statement submitted herewith. Accordingly, no fees are believed due in connection with the submission of the Supplemental Information Disclosure Statement.

Also submitted herewith is a copy of the Information Disclosure Statement previously filed on December 30, 2003 along with a copy of the PTO-1449 as filed in the parent application serial number 09/021,286 filed February 10, 1998. As discussed with the Examiner, a copy of each of the cited references will be provided for consideration by the Examiner.

## IV. Claim Rejections - 35 U.S.C. § 112, first paragraph, written description

Claims 1-13 and 16-62 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement. Applicants respectfully traverse this rejection. Applicants note that the United States Patent and Trademark Office carries the initial burden of establishing why a person skilled in the art would not recognize that the written description provides support for the claims, and that there is a strong presumption that an adequate written description of the claimed invention is present when the application is filed. 66 Fed. Reg. 1099 (January 5, 2001). Thus, the rejection of an application for lack of an adequate written description is meant to be a rare occurrence. 66 Fed. Reg. 1099 (January 5, 2001).

As discussed during the interview, Applicants have amended Claims 1-3, 12, 16-19, 26, 31-33,43-45, 57, and 61-62 to claim fragments of a QTPase nucleic acid of SEQ ID NO 1 or a complement thereof or nucleic acids of greater than or equal to 30 consecutive nucleotides of SEQ ID NO. 1 that hybridize to a nucleic acid of SEQ. ID. No. 1 under specific conditions. Applicants note that the present application provides substantial support for these amendments in the canceled claims and throughout the specification (see U.S. Publication No. 2002/0108151A1). More specifically, paragraphs 38, 41, 80, 84, and 87 of U.S. Publication No. 2002/0108151A1 disclose fragments of a QTPase nucleic acid of sequence SEQ ID NO: 1. The examples in the specification, for instance, substantially support the

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claimed fragments and provide significant utility. In Example 2, radiolabeled fragments of QTPase transcripts were hydrolyzed by alkaline hydrolysis to average lengths of 100 to 200 nucleotides and these fragments were used to perform the in situ hybridization that confirmed that the QTPase gene is found in the root cortex of the plant. In Example 3, the amount of QTPase mRNA in Nic1 and Nic2 tobacco mutants was ascertained using radiolabeled QTPase cDNA fragments. In Example 4, topped tobacco plants were analyzed for QTPase mRNA levels using radiolabeled QTPase cDNA fragments. Furthermore, Applicants note that the claimed fragments can be used in analysis following the approaches described in Examples 2, 3, and 4, to monitor the prevalence of the QPRTase transcript in successive generations of genetically modified tobacco. Monitoring the prevalence of the transcript in the genetically engineered tobacco is commercially important to insure that the reduced nicotine tobacco is in fact being grown in the planted fields rather than a tobacco that has reverted to wild-type, by for example, loss of the construct. Such a use or application of the claimed fragments is readily recognized by those of skill in the art. Accordingly, an abundance of written description support and a substantial utility for the claimed fragments is provided in the specification.

Additionally, Applicants note that the application in paragraph 45, discloses the value of probes for differential hybridization for screening tobacco libraries. . Applicants also note that the hybridization conditions set forth in the claims are disclosed in the present application in paragraph 44.

Applicants note that the claims as amended are directed to a class of molecules defined by their sequence, i.e. hybrids greater than or equal to 30 nucleotides, and as such, as the sequence mismatch increases, the ability to hybridize decreases. As shown in the Applicants IDS references, Applicants have not found a nucleotide sequence at the time of filing that matches a 30 nucleotide sequence as claimed in the present invention. Accordingly, Applicants respectfully request that the 35 U.S.C. § 112, first paragraph rejection be withdrawn and that the application proceeds to issue.

## V. Claim Rejections – 35 U.S.C. § 112, first paragraph, enablement

Claims 1-13 and 16-62 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly not reasonably providing enablement. Applicants respectfully traverse this rejection.

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Applicants note that the "test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation." (MPEP §2164.01, citing *In re Wands*, 858 F.2d 731, 737). Furthermore, the test for whether or not the enablement requirement has been met involves determining whether or not practice of the invention as claimed involves "undue experimentation". It has long been settled that "the key word is 'undue', not 'experimentation". *In re Angstadt*, 190 USPQ 214, 219 (C.C.P.A. 1976).

For the presently claimed application, Applicants submit that the application of the current technology requires routine effort, and not undue experimentation. Applicants note that suppression has been used as a tool to identify gene function and that as such, a wide range of application from targets for therapeutics or pesticides and even therapy. See, Sharma et al., Anticancer Res. 1996 16(1) 61-9); Mann et al, J. Clin Invest, 2000 106(9) 1071-5. It has been demonstrated that in some plants and organisms, the production of double-stranded RNA provides a more efficient method of post-transcriptional suppression and that in the case of transgenic plants, a high percentage of transgenic lines have shown significant reduction of the target gene product and a reduced amount of activity. See, Waterhouse et al., 1998, PNAS, 95:13959-13964.

Given the present disclosure, one of skill in the art certainly understands how to make and use the claimed QTPase fragments. In fact, approaches to make and use the claimed fragments are provided in the specification. Applicants note that they disclose the manufacture and use of *in vitro* QTPase RNA fragments labeled with <sup>35</sup>S-ATP as a probe to detect QPTase RNA (see discussion of Example 2, *supra*), wherein an alkaline hydrolysis step was employed. Example 2 specifically illustrates examples of 100 and 200 nucleotide sequences that complement QPTase RNA. This example also notes conditions for a second version of hybridization. Examples 3 and 4 also describe the use of radiolabeled QTPase cDNA fragments.

Applicants note that the claims as amended meet the test of considering all of the Wands factors as a whole. Again, Applicants note that one of skill in the art could readily use probes as a monitor for the prevalence of the QPRTase transcript in successive generations of genetically modified tobacco. Accordingly, Applicants

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submit that the present claims are enabled and respectfully request that the enablement rejections be withdrawn.

# VI. Claims Rejections - 35 U.S.C. § 112, second paragraph

Claims 1-13, 16-25 and 27-56 have been rejected allegedly under 35 U.S.C. § 112, second paragraph, for various informalities, i.e. antecedent basis and the like. Applicants have amended the claims as suggested by the Examiner and respectfully request reconsideration and withdrawal of the rejections to Claims 1-13, 16-25 and 27-56

# VII. Claims Rejections – 35 U.S.C. § 101

Claim 44 is rejected under 35 U.S.C. § 101 as allegedly the claim is directed to non-statutory subject matter. Applicants respectfully traverse this rejection for the reasons set forth below. Specifically, it is alleged that under Mendelian inherence of genes, the seeds produced would be ¼ wild type. Applicants submit that the claim as amended recites a seed from a transgenic tobacco plant as recited in Claims 13, 31 or 43. These seeds would carry the transformed cells for transgenic tobacco plants and as such, the progeny would carry the transgene that distinguishes the presently claimed plants from the wild type. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection to Claim 44.

# VIII. Claims Rejections – 35 U.S.C. § 102(b)

Claims 1-2 stand rejected under 35 U.S.C. § 102(b) as allegedly not being novel in view of Hughes et al. Case law holds and the M.P.E.P. states that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Furthermore, the identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The cited art fails to disclose the subject matter contained in the claims of the present invention. Applicants submit that Hughes et al. does not disclose the nucleotide sequence of SEQ ID NO: 1, or the claimed fragments thereof. Accordingly,

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Applications respectfully request reconsideration and withdrawal of the rejections to Claims 1-2.

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#### CONCLUSION

In view of the remarks presented herein, Applicants respectfully submit that the claims define patentable subject matter. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney, Jarett K. Abramson, at (919) 854-1400.

It is not believed that an extension of time and/or additional fee(s)-including fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. In the event, however, that an extension of time is necessary to allow consideration of this paper, such an extension is hereby petitioned under 37 C.F.R. §1.136(a). Any additional fees believed to be due in connection with this paper may be charged to our Deposit Account No. 50-0220.

Respectfully Submitted

Shawna C. Lemon

Registration No. 53,888

for

Jarett K. Abramson

Registration No. 47,376

USPTO Customer No.: 20792 Myers Bigel Sibley & Sajovec, P.A. Post Office Box 37428 Raleigh, NC 27627

Telephone (919) 854-1400

CERTIFICATE OF EXPRESS MAILING

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Date of Deposit: October 8, 2004

I hereby certify that this correspondence is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR § 1.10 on the date indicated above and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Katie A. Chung

### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Conkling, et al.

Confirmation No: 1188

Serial No.:

09/963,340

Group Art Unit: 1638

Filed:

September 24, 2001

Examiner: Kallis

For: REGULATION OF QUINOLATE PHOSPHORIBOSYL TRANSFERASE EXPRESSION

Date: December 30, 2003

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

COPY

#### INFORMATION DISCLOSURE STATEMENT

Sir:

Attached is a copy of the PTO-1449 as filed in parent application serial number 09/021,286; filed February 10, 1998, with the application number and filing date of the parent application struck through and the application number and filing date of the above-referenced application written in.

A copy of each of the references above has been submitted to, or cited by, the Examiner in the parent application and is not provided herewith.

It is requested that all of these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. §1.56 and Section 609 of the MPEP.

No fee is believed due. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,

Jarett K. Abramson

Registration No. 47,376

Customer No. 20792

Myers Bigel Sibley & Sajovec, P.A.

P. O. Box 37428

Raleigh, North Carolina 27627 Telephone: (919) 854-1400

Facsimile: (919) 854-1401

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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on December 30, 2003.

Clara R. Beard

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE ATTY, DOCKET NO. 5051-338℃ 丁

APPLICATION NO.

09/021,286 09/963,340

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

AL SHEETS IF NECESSARY)

**APPLICANT** Conkling et al.

FILING DATE 10 February 1008 September 24.2001

**GROUP** 1638

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#### **U.S. PATENT DOCUMENTS**

	100	·		•			
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1	2001/0026941 A1	10/04/01	Held et al.			
	2	6,281,410	08/28/01	Knauf et al.		-	01/15/99
	3	6,271,031	08/07/01	Falco et al.			08/09/99
	4	2001/0006797 A1	07/05/01	Kumagai et al.			
	5	6,255,560	07/03/01	Fraley et al.			01/11/99
	6	6,174,724	01/16/01	Rogers et al.			05/04/95
	7	6,165,715	12/26/00	Collins et al.	1		
	8	6,051,757	04/18/00	Barton et al.	<del></del>		06/05/95
<del></del>	9	6,051,409	04/18/00	Hansen et al.	1		
	10	6,022,863	02/08/00	Peyman			
	11	5,994,629	11/30/99	Bojsen et al.			
	12	5,981,839	11/09/99	Knauf et al.			03/07/97
	13	5,976,880	11/02/99	Sautter et al.			
	14	5,962,768	10/05/99	Cornelissen et al.	·		·
	15	5,932,782	08/03/99	Bidney			
	16	5,929,306	07/27/99	Torisky et al.	,		
	17	5,858,742	01/12/99	Fraley et al.	1		06/24/96
=	18	5,858,774	01/12/99	Malbon et al.			10/16/95
	19	5,851,804	12/22/98	Snyder et al.			· · · · · · · · · · · · · · · · · · ·
	20	5,837,876	11/17/98	Conkling et al.			07/28/95
	21	5,834,236	11/10/98	Lamb et al.	1		
	22	5,830,728	11/03/98	Christou et al.			<del> </del>
	23	5,776,502	07/07/98	Foulkes et al.			
	24	5,776,771	07/07/98	Yu et al.			
	25	5,767,378	06/16/98	Bojsen et al.			
	26	5,759,829	06/02/98	Shewmaker et al.			06/05/95

**EXAMINER** 

DATE CONSIDERED

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FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY, DOCKET NO. 5051-338

APPLICATION NO. 09/021,286

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APPLICANT Conkling et al.

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#### U.S. PATENT DOCUMENTS **EXAMINER** DOCUMENT NUMBER DATE NAME CLASS SUBCLASS FILING DATE (IF APPROPRIATE) 5,731,179 03/24/98 Komari et al. 27 5,723,751 03/03/98 Chua 28 5,877,023 03/02/98 Sautter et al. 29 5,713,376 02/03/98 Berger 30 05/13/98 5,693,512 12/02/97 Finer et al. 31 5,668,295 09/16/97 Wahab et al. 03/03/95 32 5,635,381 06/03/97 Hooykaas et al. 33 5,530,196 06/25/96 Fraley et al. 09/02/94 34 5,501,967 03/26/96 Offringa et al. 35 5,989,915 11/23/95 Christou et al. 36 11/07/95 5,464,763 37 Schilperoort et al. 12/23/93

Conkling et al.

1 1		1		1 1
39	5,352,605	10/04/94	Fraley et al.	10/28/93
40	5,283,184	02/01/94	Jorgensen et al.	
41	5,272,065	12/21/93	Inouye et al.	06/21/90
42	5,231,020	07/27/93	Jorgensen et al.	
 43	5,208,149	05/04/93	Inouye et al.	04/10/92
44	5,190,931	03/02/93	Inouye et al.	11/15/89
 45	5,149,645	09/22/92	Hoekema et al.	
 46	5,100,792	03/31/92	Sanford et al.	
 47	5,036,006	07/30/91	Sanford et al.	
 48	5,034,322	07/23/91	Rogers et al.	04/05/89
49	4,954,442	09/04/90	Gelvin et al.	
50	4,945,050	07/31/90	Sanford et al.	
51	4,940,838	07/10/90	Schilperoort et al.	02/23/84
52	4,885,248	12/05/89	Ahlquist	
53	4,762,785	08/09/88	Comai	

EXAMINER

DATE CONSIDERED

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. 5051-338

APPLICATION NO. 09/021,286

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APPLICANT Conkling et al.

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#### U.S. PATENT DOCUMENTS

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	54	4,693,976	09/15/87	Schilperoort			

	·,,	.,		FOREIGN PATENT DOCUMENTS				
EXAMINER INITIAL		DOCUMENT NUMBER	DATE COUNTRY	CLASS	SUBCLASS	TRANSLATION		
			1				YES	NO
	55	0 116 718 A1	29.08.84					
	56	0 120 515 A2	03.10.84	European Patent Office				
	57	0 120 515 B1	03.10.84	European Patent Office				
	58	0 120 516 A2	03.10.84	European Patent Office				
	59	0 131 620 B1	23.01.85	European Patent Office	.			
	60 .	0 131 623 B1	06.03.91	European Patent Office				
	61	0 131 624 B1	23.01.85	European Patent Office				
	62	0 140 308 A2	08.05.85	European Patent Office				
	63	0 140 308 A3	08.05.85	European Patent Office			<u>.</u>	
	64	0 140 308 B1	08.05.85	European Patent Office				
	65	0 159 779 B1	30.10.85	European Patent Office				
·	66	0 176 112 B1	02.04.86	Patent Cooperation Treaty				
	67	0 189 707 B1	06.08.86	European Patent Office				<del></del>
. "	68	0 223 399 A1	27.05.87	European Patent Office				
	69	0 223 399 B1	27.05.87	Patent Cooperation Treaty				
	70	0 224 287 A1	03.06.87	European Patent Office				
-	71	0 240 208 A2	07.10.87	European Patent Office				
	72	0 240 208 A3	07.10.87	European Patent Office	·			<del></del>
	73	0 240 208 B1 -	07.10.87	European Patent Office				<del></del>
	74	0 265 556 A1	04.05.88	European Patent Office				
	75	0 270 822 A1	15.06.88	European Patent Office				
	76	0 290 799 A2	17.11.88	European Patent Office				<del>.</del>

EXAMINER

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APPLICATION NO. 09/021,286

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EXAMINER INITIAL	ADEN	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION
	77	0 290 799 A3	17.11.88	European Patent Office	<u> </u>		YES	NO
	78	0 320 500 A2	14.06.89	European Patent Office	<u> </u>			
	79	0 320 500 A3	14.06.89	European Patent Office	ļ			
	80	0 458 367 A1	27.11.91	European Patent Office		·		
	81	0 486 214 A2	20.05.92	European Patent Office				
	82	0 486 214 A3	20.05.92	European Patent Office				
	83	0 486 234 B1	20.05.92	European Patent Office				
	84	EP 0 131 623 B2	23.01.85	European Patent Office				
	+	EP 0 458 367 B1	27.11.91	European Patent Office	-			
	85	EP 0 467 349 B1	22.01.92	European Patent Office				-
:	86	WO 84/ 02913	02.08.84					
	87	WO 84/ 02919	02.08.84	Patent Cooperation Treaty				
	88	WO 84/ 02919 WO 84/ 02920	02.08.84	Patent Cooperation Treaty				
	89			Patent Cooperation Treaty				
	90	WO 93/05646	01.04.93	Patent Cooperation Treaty				
	91	CA 1,341,091	05.09.00	Canadian Intellectual Property Office				
	92	WO 02/00927	03.01.02	Patent Cooperation Treaty				
	93	WO 00/12735	09.03.00	Taylor et al.				
<del>-</del>	94	WO 00/18939	06.04.00	Bidney et al.				-
	95	WO 00/29566	25.05.00	Reismeier et al.				
	96	WO 00/37060	29.06.00	Keller et al.				
·	97	WO 00/37663	29.06.00	Harrison et al.	-			
	98	WO 00/63398	26.10.00	Risacher et al.				
	99	WO 00/67558	16.11.00	Timko			-	
	100	WO 01/09302	08.02.01	Armstrong et al.				
	101	WO 01/38514	31.05.01	Held et al.				
	102	WO 01/44482	21.06.01	Depicker et al.				
	103	WO 01/49844	12.07.01	Driscoll et al.				

**EXAMINER** 

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.U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY, DOCKET NO. 5051-338

APPLICATION NO. 09/021,286

INFORMATION DISCLOSURE STATEMENT

BY APPLICANT

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APPLICANT Conkling et al.

FILING DATE 10 February 1998 GROUP 1638

CANADEM! FOREIGN PATENT DOCUMENTS EXAMINER DATE DOCUMENT NUMBER COUNTRY CLASS SUBCLASS TRANSLATION INITIAL YES WO 01/51630 A1 19.07.01 Kearney et al. 104 WO 01/68836 A2 20.09.01 105 Beach et al. WO 01/77350 A2 18.10.01 Palmer et al. 106 WO 90/12084 18,10,90 Jorgensen et al. 107 WO 91/02070 21.02.91 Offringa et al. 108 WO 93/05163 18.03.93 Okkels et al. 109 WO 92/15680 17.09.92 Roth et al. 110 WO 93/05646 01.04.93 Davis et al. 111 WO 93/17116 02.09.93 Hooykaas et al. 112 WO 94/20627 15.09.94 Bojsen et al. 113 WO 94/26913 24.11.94 114 Cornelissen et al. WO 94/28142 08.12.94 Wahab et al. 115 WO 95/16031 15.06.95 Komari et al. 116 WO 95/34668 21.12.95 Kumagai et al. 117 WO 95/35388 28.12.95 Mathews et al. 118 WO 96/21725 18.07.96 Hamilton 119 WO 97/05261 13.02.97 Conkling et al. 120 WO 97/08330 06.03.97 Collins et al. 121 WO 97/12046 03.04.97 Hansen et al. 122 WO 97/32016 04.09.97 Finer et al. 123 WO 97/41892 13.11.97 Snyder et al. 124 WO 97/44450 27.11.97 125 Peyman WO 97/49727 31.12.97 Lamb et al. 126 W@ 98/05757 12.02.98 Thompson et al. 127 WO 98/30701 16.07.98 Meyer 128 WO 98/32843 30.07.98 Zwick et al. 129 WO 99/10512 04.03.99 Dirks et al. 130

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT	APPLICANT Conkling et al.		
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TA.		DOCUMENT NUMBER	FOR	EIGN PATENT DOCUMENTS				
EXAMINER INITIAL	ADEM	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION
1 INFITAL						- 1	YES	NO
•	131	WO 99/14348	25.03.99	Lefebvre et al.				
	132	WO 99/25854	27.05.99	Gordon-Kamm et al.				<del></del>
	133	WO 99/32619	01.07.99	Fire et al.				
-,	134	WO 99/32642	01.07.99	Lowe et al.				
·	135	WO 99/49029	30.09.99	Graham et al.				
	136	WO 99/53050	21.10.99	Waterhouse et al	·-			
	137	WO 99/61631	02.12.99	Heifetz et al			-	

EXAMINER INITIAL		OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
	138	Beck et al, "Nucleotide Sequence and Exact Localization of the Neomycin Phosphotransferase Gene from Transposon Tn 5", Gene, 19: 327-336 (1982).
	139	Bevan & Flavell, "A Chimaeric Antibiotic Resistance Gene as a Selectable Marker for Plant Cell Transformation", Nature, 304: 184-187 (1983).
	140	Chilton et al., "Tailoring the Agrobacterium Ti Plasmid as a Vector for Plant Genetic Engineering", Stadler Symp., 13: 39-53 (1981).
·	141	Colbere-Garapin et al., "A New Dominant Hybrid Selective Marker for Higher Eukaryotic Cells", J. Mol. Biol., 150: 1-14 (1981).
	142	Davies and Jimenez, "A New Selective Agent for Eukaryotic Cloning Vectors", Am. J. Trop. Med. Hyg., 29(5): 1089-1092 (1980).
	143	Depicker et al., "Nopaline Synthase: Transcript Mapping and DNA Sequence", Journal of Molecular and Applied Genetics, 1(6): 561-573 (1982).
		Fraley et al., "Expression of Bacterial Genes in Plant Cells", Proc. Natl. Acad. Sci. USA, 80: 4803-4807 (1983).
	145	Fraley et al., "Use of a Chimeric Gene to Confer Antibiotic Resistance to Plant Cells", Advances in Gene Technology: Molecular Genetics of Plants and Animals, 20: 211-221 (1983).
	146	Framond et al., "Mini-Ti: A New Vector Strategy for Plant Genetic Engineering", BIO/TECHNOLOGY, 5: 262-269 (1983).
•	147	Halk et al., "Cloning of Alfalfa Mosaic Virus Coat Protein Gene and Anti-Sense RNA into Binary Vector and Their Expression in Transformed Tobacco Tissue", Molecular Strategies for Crop Protection, p.41.
		Hermaisteens et al., "The Agrobacterium Tumefaciens Ti Plasmid as a Host Vector System for Introducing Foreign DNA in Plant Cells", Nature, 287: 654-656 (1980).
		Herrera-Estrella et al., "Chimeric Genes as Dominant Selectable Markers in Plant Cells", The Embo Journal, 2(6): 987-995 (1993).
		Herrera-Estrella et al., "Expression of Chimaeric Genes Transferred into Plant Cells Using a Ti-Plasmid- Derived Vector", Nature, 303: 209-213 (1983).

EXAMINER	DATE CONSIDERED .

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

ATTY, DOCKET NO. 5051-338

APPLICATION NO. 09/021,286

INFORMATION DISCLOSURE STATEMENT

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APPLICANT Conkling et al.

FILING DATE 10 February 1998 GROUP 1638

	To the second	
EXAMINER INITIAL		PADEMAN STILL SOCIALIZATION AND THE PAGES, ETC.)
	151	Hooykaas et al., "The Ti-Plasmid of Agrobacterium Tumefaciens: A Natural Genetic Engineer", TIBS,307-309 (1985).
	152	Horsch et al., "A Simple and General Method for Transferring Genes into Plants", Biological Sciences, 227: 1229-1231 (1985).
	153	Lorz et al., "Transformation Studies Using Synthetic DNA Vectors Coding For Antibiotic Resistance", Plant Tissue Culture, 511-512 (1982).
	154	Smith et al., "Antisense RNA Inhibition of Polygalacturonase Gene Expression in Transgenic Tomatoes", Nature, 334: 724-726 (1988).
		Wang et al., "Right 25 bp Terminus Sequence of the Nopaline T- DNA is Essential for and Determines Direction of DNA Transfer from Agrobacterium to the Plant Genome", Cell, 38: 455-462 (1984).
		Database entry of Ensembl Human Genome Server, AC006461.2.1.181215, BLASTN 2.0a13MP-WashU [10-Jun-1997], 2 pp.
		Database entry of Ensembl Human Genome Server, AC024028.10.1.176278, BLASTN 2.0a13MP-WashU [10-Jun-1997], 3 pp.
	158	Database entry of Ensembl Human Genome Server, AC069205.6.1.132242, BLASTN 2.0a13MP-WashU [10-Jun-1997], 1 pp.
		Database entry of Ensembl Human Genome Server, AC097498.3.1.144511, BLASTN 2.0a13MP-WashU [10-Jun-1997], 1 pp.
		Database entry of Ensembl Human Genome Server, AC104785.4.111369.213599, BLASTN 2.0a13MP-WashU [10-Jun-1997], 1 pp.
		Database entry of Ensembl Human Genome Server, AC105416.3.1.123331, BLASTN 2.0a13MP-WashU [10-Jun-1997], 1 pp.
		Database entry of Ensembl Human Genome Server, AC108146.3.1.91810, BLASTN 2.0a13MP-WashU [10-Jun-1997], 1 pp.
		Database entry of Ensembl Human Genome Server, AC115109.2.1.59356, BLASTN 2.0a13MP-WashU [10-Jun-1997], 1 pp.
		Genbank entry U27809. Peanut bud necrosis virus S segment non-structural protein and nucleocapsid protein genes, 23-Jul-1996, 3 pp.
		The Sanger Centre, "Toward a Complete Human Genome Sequence", Cold Spring Harbor Laboratory Press, 1097-1108, (1988).
		Satyanarayana et al., "Peanut Bud Necrosis Tospovirus S RNA: Complete Nucleotide Sequence, Genome Organization and Homology to Other Tospoviruses", Arch. Virol. 141 (1), 85-98 (1996)
	167	Genbank entry AB005879. Nicotania tabacum mRNA for BYJ6, 05-Feb-1999, 2pp.
		Genbank entry AC002131. Arabidopsis thaliana chromosome 1 BAC F12F1 sequence, 28-May-1998, 38 pp.
	169	Genbank entry AC006461. Homo sapiens BAC clone RP11-343N14 from 2, 01-Mar-2002, 65 pp.
	170	Genbank entry AC024028. Homo sapiens BAC clone RP11-151M24 from 7, 07-Nov-2001, 68 pp.
	171	Genbank entry AC069205. Homo sapiens BAC clone RP11-735P12 from 2, 09-Jan-2002, 46 pp.
	172	Genbank entry AC079141. Homo sapiens BAC clone RP11-502A23 from 4, 07-Nov-2001, 43 pp.
	173	Genbank entry AC097498. Homo sapiens BAC clone RP11-326N15 from 4, 01-Mar-2002, 51pp.

EXAMI	NER
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DATE CONSIDERED

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				SHEET OUF
FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. 5051-338	APPLICATION NO. 09/021,286	a e e comme
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	OCT 0 8 2004 B
XAMINES INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
7	44 A BENERIC Entry AC105416. Homo sapiens BAC clone RP11-310A13 from 4, 12-Jun-2002, 47 pp.
	Genbank entry AC108146. Homo sapiens BAC clone RP11-437H3 from 2, 09-Mar-2002, 32 pp.
	176 Genbank entry AC115109. Homo sapiens BAC clone RP11-78I10 from 2, 29-May-2002, 23 pp.
	177 Genbank entry AR164048. Sequence 7 from patent US 6271031, 17-Oct-2001, 1 pp.
	178 Genbank entry AR164050. Sequence 11 from patent US 6271031, 17-Oct-2001, 1pp.
	179 Genbank entry AX344860. Sequence 285 from patent US WO0200927, 1-Feb-2002, 4pp.
	180 Imanishi et al., "Differential Induction by Methyl Jasmonate of Genes Encoding Ornithine Decarboxylase and Other Enzymes Involved in Nicotine Biosynthesis in Tobacco Cell Cultures", Plant Molecular Biology, 38: 1101-1111 (1998).
	Results of search of Genbank Database, BLASTN 2.2.3 [Apr-24-2002], RID:1026175671-06698-1397, 15pp.
	Results of search of Genbank Database, BLASTN 2.2.3 [Apr-24-2002], RID:1026319792-012476-25945, 30pp.
	Theologis et al., "Sequence and Analysis of Chromosome 1 of the Plant Arabidopsis Thaliana", Nature, 408: 816-820 (2000).

EXAMINER

DATE CONSIDERED